

January 18, 2013

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
(7010 3090 0002 5271 5301)

13-052E CAB
File No. 0240

Mr. Lawrence G. Ornellas
Manager, Generation
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Dear Mr. Ornellas:

Subject: Covered Source Permit (CSP) No. 0240-01-C
Permit Renewal Application No. 0240-04
Permit Application for Modification No. 0240-05
Hawaiian Electric Company, Inc.
Kahe Generating Station
Six (6) Boilers and Two (2) Black Start Diesel Engine Generators
Located at: 89-900 Farrington Highway, Waianae, Oahu
Date of Expiration: January 17, 2018

The subject covered source permit is issued in accordance with Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1. The issuance of this permit is based on the plans, specifications, and information that you submitted as part of your permit renewal application received on September 6, 2006, your permit application for modification received on October 20, 2006, and the additional information on March 20, 2007, July 28, 2009, October 10, 2010, and May 31, June 1, June 14, and August 31, 2012. The conditions of this permit supersede all conditions contained in all prior permits.

The covered source permit is issued subject to the conditions/requirements set forth in the following attachments:

Attachment I: Standard Conditions
Attachment IIA: Special Conditions – Boilers
Attachment IIB: Special Conditions – Black Start Diesel Engine Generators
Attachment II – INSIG: Special Conditions – Insignificant Activities
Attachment III: Annual Fee Requirements
Attachment IV: Annual Emissions Reporting Requirements

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The following forms are enclosed for your use and submittal as required:

- Compliance Certification Form
- Excess Emissions and Monitoring System Performance Summary Report
- Annual Emissions Report Form: Boilers
- Annual Emissions Report Form: Black Start Diesel Engine Generators
- Monitoring Report Form: Boilers
- Monitoring Report Form: Black Start Diesel Engine Generators
- Monitoring Report Form: Opacity Exceedances

The following are for use in visible emissions monitoring:

- Visible Emissions Form Requirements, State of Hawaii
- Visible Emissions Form

This permit: (a) shall not in any manner affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment; and (c) in no manner implies or suggests that the Hawaii Department of Health, or its officers, agents, or employees, assumes any liability, directly or indirectly, for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment.

Sincerely,

STUART YAMADA, P.E., CHIEF
Environmental Management Division

MM:smk

Enclosures

c: CAB Monitoring Section

**ATTACHMENT I: STANDARD CONDITIONS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

This permit is granted in accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, and is subject to the following standard conditions:

1. Unless specifically identified, the terms and conditions contained in this permit are consistent with the applicable requirement, including form, on which each term or condition is based.

(Auth.: HAR §11-60.1-90)
2. This permit, or a copy thereof, shall be maintained at or near the source and shall be made available for inspection upon request. The permit shall not be willfully defaced, altered, forged, counterfeited, or falsified.

(Auth.: HAR §11-60.1-6; SIP §11-60-11)²
3. This permit is not transferable whether by operation of law or otherwise, from person to person, from place to place, or from one piece of equipment to another without the approval of the Department of Health, except as provided in HAR, Section 11-60.1-91.

(Auth.: HAR §11-60.1-7; SIP §11-60-9)²
4. A request for transfer from person to person shall be made on forms furnished by the Department of Health.

(Auth.: HAR §11-60.1-7)
5. In the event of any changes in control or ownership of the facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions by letter, copies of which will be forwarded to the Department of Health and the U.S. Environmental Protection Agency (EPA), Region 9.

(Auth.: HAR §11-60.1-5, §11-60.1-7, §11-60.1-94)
6. The facility covered by this permit shall be constructed and operated in accordance with the application, and any information submitted as part of the application, for the Covered Source Permit. There shall be no deviation unless additional or revised plans are submitted to and approved by the Department of Health, and the permit is amended to allow such deviation.

(Auth.: HAR §11-60.1-2, §11-60.1-4, §11-60.1-82, §11-60.1-84, §11-60.1-90)

7. This permit (a) does not release the permittee from compliance with other applicable statutes of the State of Hawaii, or with applicable local laws, regulations, or ordinances, and (b) shall not constitute, nor be construed to be an approval of the design of the covered source.

(Auth.: HAR §11-60.1-5, §11-60.1-82)

8. The permittee shall comply with all the terms and conditions of this permit. Any permit noncompliance constitutes a violation of HAR, Chapter 11-60.1 and the Clean Air Act and is grounds for enforcement action; for permit termination, suspension, reopening, or amendment; or for denial of a permit renewal application.

(Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-19, §11-60.1-90)

9. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid.

(Auth.: HAR §11-60.1-90)

10. The permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit.

(Auth.: HAR §11-60.1-90)

11. This permit may be terminated, suspended, reopened, or amended for cause pursuant to HAR, Sections, 11-60.1-10 and 11-60.1-98, and Hawaii Revised Statutes (HRS), Chapter 342B-27, after affording the permittee an opportunity for a hearing in accordance with HRS, Chapter 91.

(Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-90, §11-60.1-98)

12. The filing of a request by the permittee for the termination, suspension, reopening, or amendment of this permit, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Auth.: HAR §11-60.1-90)

13. This permit does not convey any property rights of any sort, or any exclusive privilege.

(Auth.: HAR §11-60.1-90)

14. The permittee shall notify the Department of Health and U.S. EPA, Region 9, in writing of the following dates:

- a. The **anticipated date of initial start-up** for each emission unit of a new source or significant modification not more than sixty (60) days or less than thirty (30) days prior to such date;
- b. The **actual date of construction commencement** within fifteen (15) days after such date; and
- c. The **actual date of start-up** within fifteen (15) days after such date.

(Auth.: HAR §11-60.1-90)

15. The permittee shall furnish, in a timely manner, any information or records requested in writing by the Department of Health to determine whether cause exists for terminating, suspending, reopening, or amending this permit, or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Department of Health copies of records required to be kept by the permittee. For information claimed to be confidential, the Director of Health may require the permittee to furnish such records not only to the Department of Health but also directly to the U.S. EPA, Region 9, along with a claim of confidentiality.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

16. The permittee shall notify the Department of Health in writing, of the **intent to shut down air pollution control equipment for necessary scheduled maintenance** at least twenty-four (24) hours prior to the planned shutdown. The submittal of this notice shall not be a defense to an enforcement action. The notice shall include the following:
 - a. Identification of the specific equipment to be taken out of service, as well as its location and permit number;
 - b. The expected length of time that the air pollution control equipment will be out of service;
 - c. The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;
 - d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and
 - e. The reasons why it would be impossible or impractical to shut down the source operation during the maintenance period.

(Auth.: HAR §11-60.1-15; SIP §11-60-16)²

17. **Except for emergencies which result in noncompliance with any technology-based emission limitation in accordance with HAR, Section 11-60.1-16.5, in the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of HAR, Chapter 11-60.1 or this permit, the permittee shall immediately notify the Department of Health of the malfunction or breakdown, unless the protection of personnel or public health or safety demands immediate attention to the malfunction or breakdown and makes such notification infeasible. In the latter case, the notice shall be provided as soon as practicable. Within five (5) working days of this initial notification, the permittee shall also submit, in writing, the following information:**

- a. Identification of each affected emission point and each emission limit exceeded;
- b. Magnitude of each excess emission;
- c. Time and duration of each excess emission;
- d. Identity of the process or control equipment causing the excess emission;
- e. Cause and nature of each excess emission;
- f. Description of the steps taken to remedy the situation, prevent a recurrence, limit the excessive emissions, and assure that the malfunction or breakdown does not interfere with the attainment and maintenance of the National Ambient Air Quality Standards and state ambient air quality standards;
- g. Documentation that the equipment or process was at all times maintained and operated in a manner consistent with good practice for minimizing emissions; and
- h. A statement that the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

The submittal of these notices shall not be a defense to an enforcement action.

(Auth.: HAR §11-60.1-16; SIP §11-60-16)²

18. The permittee may request confidential treatment of any records in accordance with HAR section 11-60.1-14.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

19. This permit shall become invalid with respect to the authorized construction if construction is not commenced as follows:

- a. Within eighteen (18) months after the permit takes effect, is discontinued for a period of eighteen (18) months or more, or is not completed within a reasonable time.
- b. For phased construction projects, each phase shall commence construction within eighteen (18) months of the projected and approved commencement dates in the permit. This provision shall be applicable only if the projected and approved commencement dates of each construction phase are defined in Attachment II, Special Conditions, of this permit.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

20. The Department of Health may extend the time periods specified in Standard Condition No. 19 upon a satisfactory showing that an extension is justified. Requests for an extension shall be submitted in writing to the Department of Health.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

21. The permittee shall submit fees in accordance with HAR, Chapter 11-60.1, Subchapter 6.

(Auth.: HAR §11-60.1-90)

22. All certifications shall be in accordance with HAR, section 11-60.1-4.

(Auth.: HAR §11-60.1-4, HAR §11-60.1-90)

23. The permittee shall allow the Director of Health, the Regional Administrator for the U.S. EPA and/or an authorized representative, upon presentation of credentials or other documents required by law:

- a. To enter the premises where a source is located or emission-related activity is conducted, or where records must be kept under the conditions of this permit and inspect at reasonable times all facilities, equipment, including monitoring and air pollution control equipment, practices, operations, or records covered under the terms and conditions of this permit and request copies of records or copy records required by this permit; and
- b. To sample or monitor at reasonable times substances or parameters to ensure compliance with this permit or applicable requirements of HAR, Chapter 11-60.1.

(Auth.: HAR §11-60.1-11, §11-60.1-90)

24. Within thirty (30) days of **permanent discontinuance of the construction, modification, relocation, or operation of the facility covered by this permit**, the discontinuance shall be reported in writing to the Department of Health by a responsible official of the source.

(Auth.: HAR §11-60.1-8; SIP §11-60-10)²

25. Each permit renewal application shall be submitted to the Department of Health and the U.S. EPA, Region 9, no less than twelve (12) months and no more than eighteen (18) months prior to the permit expiration date. The director may allow a permit renewal application to be submitted no less than six (6) months prior to the permit expiration date, if the director determines that there is reasonable justification.

(Auth.: HAR §11-60.1-101, 40 CFR §70.5(a)(1)(iii))¹

26. The terms and conditions included in this permit, including any provision designed to limit a source's potential to emit, are federally enforceable unless such terms, conditions, or requirements are specifically designated as not federally enforceable.

(Auth.: HAR §11-60.1-93)

27. The compliance plan and compliance certification submittal requirements shall be in accordance with HAR, sections 11-60.1-85 and 11-60.1-86. As specified in HAR, section 11-60.1-86, the compliance certification shall be submitted to the Department of Health and the U.S. EPA, Region 9, once per year, or more frequently as set by any applicable requirement.

(Auth.: HAR §11-60.1-90)

28. The best available control technology (BACT) emission limits and start-up restrictions specified for Boiler K-6 in Attachment IIA, the hour limits specified for the black start diesel engine generators specified in Attachment IIB, and other associated conditions are derived from the PSD requirements of 40 CFR §52.21. With the exception of permit conditions associated with the PSD regulations, the operating permit shall expire on the designated expiration date. The permit will remain valid past its expiration date after a complete permit renewal application is submitted in accordance with HAR §11-60.1-101 prior to the permit expiration date.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-101, 40 CFR §52.21)¹

29. All PSD conditions are subject to the applicable procedures in 40 CFR Part 124, including the appeal provisions in 40 CFR §124.19.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-101, 40 CFR §52.21)¹

30. **Any document (including reports) required to be submitted by this permit shall be certified as being true, accurate, and complete by a responsible official in accordance with HAR, sections 11-60.1-1 and 11-60.1-4, and shall be mailed to the following address:**

**Clean Air Branch
Environmental Management Division
State of Hawaii Department of Health
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814**

Upon request and as required by this permit, all correspondence to the State of Hawaii Department of Health associated with this Covered Source Permit shall have duplicate copies forwarded to:

**Chief, Permits Office
(Attn: AIR-3)
Air Division
U.S. EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105**

(Auth.: HAR §11-60.1-4, §11-60.1-90)

31. To determine compliance with submittal deadlines for time-sensitive documents, the postmark date of the document shall be used. If the document was hand-delivered, the date received ("stamped") at the Clean Air Branch shall be used to determine the submittal date.

(Auth.: HAR §11-60.1-5, §11-60.1-90)

¹The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

²The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

**ATTACHMENT IIA SPECIAL CONDITIONS – BOILERS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In addition to the standard conditions of the covered source permit, the following emissions units are subject to the special conditions listed below:

Section A. Equipment Description

1. Attachment IIA of this permit encompasses the following boilers and associated appurtenances:

<u>Unit</u>	<u>Description</u>
K-1	92 MW (nominal), 903 MMBtu/hr Babcock and Wilcox boiler, model no. RB-378, serial no. 20731, with six (6) oil fired burners and propane fired igniter servicing each burner.
K-2	90 MW (nominal), 900 MMBtu/hr Babcock and Wilcox boiler, model no. RB-379, serial no. 20732, with six (6) oil fired burners and propane fired igniter servicing each burner.
K-3	92 MW (nominal), 892 MMBtu/hr Combustion Engineering boiler, model no. 5067, serial no. 20859, with twelve (12) oil fired burners and diesel fired igniter servicing each burner.
K-4	93 MW (nominal), 918 MMBtu/hr Combustion Engineering boiler, model no. 12867, serial no. 20881, with twelve (12) oil fired burners and diesel fired igniter servicing each burner.
K-5	142 MW (nominal), 1,468 MMBtu/hr Babcock and Wilcox boiler, model no. RB-486, serial no. 23465, with nine (9) oil fired burners and diesel fired igniter servicing each burner.
K-6	142 MW (nominal), 1,516 MMBtu/hr Babcock and Wilcox boiler, model no. RB-487, serial no. 23466, with nine (9) oil fired low-nitrogen oxide (NO _x) burners and diesel fired igniter servicing each burner.

(Auth.: HAR §11-60.1-3)

2. An identification tag or nameplate shall be displayed on the boilers listed above to show the model no., serial no., and manufacturer. The identification tag or nameplate shall be permanently attached to the equipment at a conspicuous location.

(Auth.: HAR §11-60.1-5, §11-60.1-90)

Section B. Federal Regulations

1. Boilers K-1 through K-6 are subject to the provisions of the following federal regulations:

- a. 40 Code of Federal Regulations (CFR) Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories, Subpart A, General Provisions; and
- b. 40 CFR Part 63, NESHAP for Source Categories, Subpart UUUUU, NESHAP: Coal-Oil-Fired Electric Utility Steam Generating Units.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §63.11194, §63.9981)¹

2. Boiler K-6 is subject to the provisions of the following additional federal regulations:

- a. 40 CFR Part 52.21, Prevention of Significant Deterioration (PSD) of Air Quality;
- b. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart A, General Provisions; and
- c. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart D, New Source Performance Standards (NSPS) for Fossil-Fuel-Fired Steam Generators.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.40)¹

3. The permittee must comply with 40 CFR Part 63, Subpart UUUUU no later than April 16, 2015.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.40, §63.9981, §63.9984)¹

4. Modifications to Attachment IIA, Special Condition No. C.2.b and C.2.c that increases potential emissions above the applicable PSD threshold will require a full PSD review as though construction has not yet commenced on Boiler K-6.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161, 40 CFR §52.21)¹

5. The permittee shall comply with all applicable requirements of these standards, including all emission limits, notification, testing, monitoring, and reporting requirements. The major requirements of these standards are detailed in the special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161)¹

Section C. Operational Limitations and Standards

1. Boilers K-1 through K-6 Operating Limits

- a. Except as specified in Attachment IIA, Special Condition Nos. C.1.c and C.1.d, Boilers K-1 through K-4 shall be fired only on one (1) or a combination of the following fuels:

- i. Fuel oil No. 6 with a maximum sulfur content not to exceed 0.5% by weight; and
 - ii. Specification used oil meeting the requirements in Attachment IIA, Special Condition No. C.5.g.
- b. Except as specified in Attachment IIA, Special Condition No. C.1.d, Boilers K-5 and K-6 shall be fired only on fuel oil No. 6 with a maximum sulfur content not to exceed 0.5% by weight.
 - c. Boilers K-1 and K-2 shall be fired only on propane for lighting the burners with the igniters during boiler start-up, scavenging/purging fuel oil No.6 from burner guns, and igniter testing.
 - d. Boilers K-3 through K-6 shall be fired only on fuel oil No. 2 with maximum sulfur content not to exceed 0.5% by weight for lighting the burners with the igniters during boiler start-up, scavenging/purging fuel oil No. 6 from burner guns, and igniter testing.
 - e. The total combined fuel oil No. 6 and fuel oil No. 2 fired by Boiler K-6 shall not exceed 8,610 gallons per hour based on the unit's daily maximum average fuel consumption.
 - f. The total combined specification used oil fired by Boilers K-1 through K-4 shall not exceed 115,000 gallons in any rolling twelve-month (12-month) period.
 - g. The boilers shall be maintained in good operating condition at all times with scheduled inspections and maintenance as recommended by the manufacturer and as needed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-38, §11-60.1-90; 40 CFR §52.21, §63.11196, §63.11201, §63.11205; SIP §11-60-24)^{1,2}

2. Boiler K-6 NO_x Startups

- a. Boiler K-6 NO_x startups shall not exceed thirty-six (36) hours per occurrence and shall exclude the time when the boiler is not combusting fuel.
- b. The total combined NO_x startup duration for Boiler K-6 shall not exceed six hundred (600) hours in any rolling twelve-month (12-month) period.
- c. A NO_x startup period is when the first boiler igniter is lighted until the boiler's subsystems are brought online and stability is attained for normal operation; or when the boiler is initially brought up to thirty-two percent (32%) load (45 MW) whichever occurs first.
- d. The maximum heat input rate shall not exceed 433.5 MMBtu/hr over any rolling three (3) hour average during Boiler K-6 NO_x startups.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-38, §11-60.1-90; 40 CFR §52.21)¹

3. Boiler K-6 Emission Limits

- a. For each NO_x startup period, Boiler K-6 shall not exceed the following nitrogen oxide (NO_x) as nitrogen dioxide (NO₂) emissions limit over any three-hour (3-hour) averaging period:

Pollutant	Maximum Emissions Limit (3-hour average)
NO _x (as NO ₂)	0.30 lb/MMBtu

- b. Except for the NO_x emissions during boiler NO_x startup, the permittee shall not discharge or cause the discharge into the atmosphere from Boiler K-6, NO_x as NO₂, sulfur dioxide (SO₂), and particulate matter (PM) emissions, over any three-hour (3-hour) averaging period, in excess of the following limits:

<u>Pollutant</u>	Maximum Emission Limit (3-hour average)
NO _x (as NO ₂)	0.23 lb/MMBtu
SO ₂	0.53 lb/MMBtu
PM	0.10 lb/MMBtu

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.42, §60.43, §60.44)¹

4. Boilers K-1 through K-6 Opacity Limits

- a. For any six (6) minute averaging period, Boilers K-1 through K-4 shall not exhibit visible emissions of forty (40) percent or greater, except as follows: during startup, shutdown, or equipment breakdown, Boilers K-1 through K-4 may exhibit visible emissions greater than forty (40) percent opacity, but not exceeding sixty (60) percent opacity, for a period aggregating not more than six (6) minutes in any sixty (60) minute period.
- b. For any six (6) minute averaging period, Boilers K-5 and K-6 shall not exhibit visible emissions of twenty (20) percent or greater, except as follows: during startup, shutdown, or equipment breakdown, Boilers K-5 and K-6 may exhibit visible emissions greater than twenty (20) percent opacity, but not exceeding sixty (60) percent opacity, for a period aggregating not more than six (6) minutes in any sixty (60) minute period.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90; 40 CFR §60.42a)¹

5. Boilers K-1 through K-4 Used Oil

For firing Boilers K-1 through K-4 on used oil, the following shall apply:

- a. The permit conditions prescribed herein may at any time be revised by the Department of Health to conform to any federal or state promulgated rules on used oil.
- b. This permit shall not release the permittee from compliance with all applicable state and federal regulations on the handling, transporting, storing, and burning of used oil.
- c. This permit does not authorize the permittee to burn hazardous waste. The permittee shall not burn the used oil if it's declared or determined to be hazardous waste.
- d. The used oil shall be obtained from equipment owned, operated, or maintained by the permittee and shall consist of used oil, mixtures of used oil, and liquid substances containing used oil in accordance with HAR Title 11, Chapter 279.
- e. Used oil may be obtained from other sources, provided written notification identifying the new source is submitted to the Department of Health and approved prior to

accepting the used oil. Requests for obtaining used oil from other sources shall be in accordance with Attachment IIA, Special Condition No. E.6.

- f. Used oil shall be sampled and analyzed before using it as a fuel for the boilers. Used oil samples shall be taken in such a manner that sampling is representative of the used oil collected.
- g. The specification used oil fired by the boilers shall meet the following limits:

Constituent/Property	Allowable Limit
Sulfur	≤ 0.5 % by weight
Arsenic	≤ 5 ppm
Cadmium	≤ 2 ppm
Chromium	≤ 10 ppm
Lead	≤ 100 ppm
Total Halogens	≤ 1,000 ppm
Flash Point	≥ 100 °F
PCBs	< 2 ppm

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90)

6. Boilers K-1 through K-6 Alternate Operating Scenarios

- a. Upon receiving written approval from the Department of Health, the permittee may fire Boilers K-1 through K-6 on an alternate fuel (including, but not limited to, biofuel) if burning the fuel does not require PSD review, or compliance with NSPS or NESHAP requirements that would not otherwise apply, or compliance with a requirement that is different from those specified in this permit. Requests for burning an alternate fuel shall be in accordance with Attachment IIA, Special Condition No. E.9.a.
- b. The permittee may operate Boilers K-1 through K-6 up to 110% of peak load for emergency load conditions, if equipment malfunction such as sudden loss of a unit occurs. The time period for this operation shall not exceed thirty (30) minutes in duration, and shall not exceed maximum permitted emission limits. The reason for operating above peak load shall be clearly documented, with the event's date, time, duration, operating load, and resulting emission rates.
- c. Upon receiving written approval from the Department of Health, the permittee may use specific fuel additives to control algae, lubricity, improve combustion, inhibit corrosion, or other reasons. Request for using fuel additives shall be in accordance with Attachment IIA, Special Condition No. E.9.b.
- d. Alternate operating scenario records shall be maintained in accordance with Attachment IIA, Special Condition No. D.9.
- e. The terms and conditions under each operating scenario shall meet all applicable requirements, including the special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.01, §63.1)¹

Section D. Monitoring and Record keeping Requirements

1. Boilers K-1 through K-6 Records

All records, including support information, shall be maintained at the facility for **at least five (5) years** from the date of the monitoring samples, measurements, tests, reports, or applications. Support information includes all maintenance, inspection, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department of Health or its representative(s) upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

2. Boilers K-1 through K-6 Fuel Consumption

- a. The permittee shall maintain records of fuel deliveries identifying the delivery dates, and the type and amount of fuel received at Kahe Generating Station and Barber's Point Tank Farm.
- b. The permittee shall operate and maintain fuel flow meters for Boiler K-6 to determine the unit's rate of fuel consumption.
- c. The following records shall be maintained for firing Boilers K-1 through K-4 on used oil:
 - i. The supplier, date received, and gallons of fuel for each delivery of used oil received; and
 - ii. The sample date, amount of used oil that the sample represents, date of used oil analysis, and reports of the used oil analysis required by Attachment IIA, Special Condition No. D.2.d.
- d. A representative sample shall be taken of the used oil prior to burning the fuel in the boilers. Each sample shall be submitted in a timely manner to a qualified laboratory and an analysis obtained for the constituents/properties for which limits are specified in Attachment IIA, Special Condition No. C.5.g.
- e. A data acquisition system shall be maintained and operated for Boiler K-6 to continuously monitor the fuel consumption rate to determine compliance with Attachment IIA, Special Condition No. C.1.e. The daily maximum average fuel consumption shall be averaged over a twenty-four (24-hour) calendar day.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

3. Boiler K-6 NO_x Startups

- a. The permittee shall maintain and operate a data acquisition system for Boiler K-6 to measure and record the number of hours during NO_x startup to determine compliance with Attachment IIA, Special Condition Nos. C.2.a and C.2.b. The following records shall be kept for boiler startups:

- i. The date and duration of boiler NO_x startup, excluding downtime and shutdown time;
 - ii. The total combined NO_x startup duration in hours each month; and
 - iii. The total combined hours operated for NO_x startup on a twelve-month (12-month) rolling basis.
- b. The permittee shall maintain and operate a data acquisition system for Boiler K-6 to determine compliance with Attachment IIA, Special Condition No. C.2.d. The data acquisition system shall use fuel flow data from the electronic fuel meter and calculate the heat input rate during the boiler startup period as defined in Attachment IIA, Special Condition No. C.2.c. The heat input rate shall be continuously monitored during the startup period and determined as follows: heat input rate, MMBtu/hr = (fuel flow rate) x (fuel oil No. 6 heat content). The heat input rate shall be calculated on a three-hour (3-hour) average.
- c. The high heating value (HHV) for fuel oil No. 6 of 0.152 MMBtu/gal shall be inputted into the data acquisition system for the heat input rate calculation, except as specified in Attachment IIA, Special Condition No. D.3.d.
- d. For fuel oil No. 6 deliveries with an HHV for the fuel that is greater than 0.152 MMBtu/gal which is expected to be used for Boiler K-6, the permittee shall sample and test the fuel in the receiving tank at Kahe Generating Station for the fuel's HHV. The fuel shall not be burned in Boiler K-6 prior to receipt of the laboratory analysis. If the test results indicate a HHV greater than 0.152 MMBtu/gal, the heat content value from the results shall be inputted into the data acquisition system. Otherwise, the nominal value specified in Attachment IIA, Special Condition D.3.c shall be used.
- e. The permittee shall maintain records on the heat content of the fuel fired by the boilers. The fuel analysis may be performed by the permittee, fuel supplier, or other qualified third party.

(Auth.: HAR §11-60.1-3, §11-60.1-90; 40 CFR §52.21)¹

4. Boiler K-6 Continuous Emissions Monitoring System (CEMS) for NO_x

- a. The permittee shall calibrate, maintain, and operate a CEMS for the exhaust stream of Boiler K-6 for measuring NO_x (as NO₂) emissions, and either oxygen (O₂) or carbon dioxide (CO₂). The CEMS shall meet U.S. EPA performance specifications and monitoring requirements of 40 CFR §60.13 and 40 CFR Part 60, Appendices B and F.
- b. During each relative accuracy test audit (RATA) of the CEMS, the NO_x and O₂ (or CO₂) data shall be collected concurrently (or within 30-to-60 minute period) by both the CEMS and the following test methods:
 - i. For NO_x, EPA Reference Method 7, 7A, 7C, or 7E; and
 - ii. For O₂ (or CO₂), EPA Reference Method 3A or 3B.
- c. Except as provided in 40 CFR §60.45 (c)(3)(ii), the span value for NO_x shall be 500 ppm for firing fossil fuels.

- d. For burning fossil fuel and nonfossil fuel, the span value for NO_x shall be subject to the Department of Health's approval, except as provided in Attachment IIA, Special Condition No. D.4.c.
- e. The CEMS shall be audited at least once each calendar quarter in accordance with 40 CFR Part 60, Appendix F. Successive quarterly audits shall occur no closer than two (2) months. The audits shall be conducted as follows:
 - i. The RATA must be conducted at least once every four (4) calendar quarters. Conduct the RATA as described for the relative accuracy (RA) according to Performance Specification 2 of 40 CFR Part 60, Appendix B.
 - ii. The cylinder gas audit (CGA) may be conducted in three (3) of four (4) calendar quarters, but in no more than three quarters in succession.
 - iii. The relative accuracy audit (RAA) may be conducted in three (3) of four (4) calendar quarters, but in no more than three (3) quarters in succession.
- f. Daily calibration drift (CD) tests shall be performed in accordance with 40 CFR Part 60, Appendix F.
- g. The CEMS shall complete a minimum of one (1) cycle of operation (sampling, analyzing, and data recording) for each successive fifteen-minute (15-minute) period.
- h. Procedures to convert the CEMS monitoring data into the units of the NO_x standard shall be in accordance with 40 CFR §60.45(e).
- i. When calculating the NO_x emission rate, a diluent cap value for O₂ or CO₂, as applicable, may be substituted for the measured diluent gas concentration value in the emission calculations. The applicable diluent cap value for calculating the NO_x emissions shall be used in accordance with 40 CFR Part 75, Appendix F, Section 3.3.4.
- j. The CEMS must provide for a minimum of ninety (90) percent valid data capture, in units of the standard, for each semi-annual calendar period (January 1 - June 30 and July 1 - December 31).

(Auth.: HAR §11-60.1-3, §11-60.1-90 §11-60.1-161; 40 CFR §52.21, §60.45, Part 60 Appendix B, Part 60 Appendix F, Part 75, Appendix F)¹

5. Boiler K-5 and K-6 Continuous Opacity Monitoring System (COMS)

The permittee shall calibrate, maintain, and operate a COMS for the exhaust stream of Boilers K-5 and K-6 for measuring opacity as follows:

- a. The COMS shall be installed, evaluated, and operated in accordance with 40 CFR Part 60, §60.13 and 40 CFR Part 60, Appendix B.
- b. The span value for the COMS shall be 80, 90, or 100 percent.
- c. The COMS must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily.
- d. The COMS shall complete a minimum of one cycle of sampling and analyzing for each successive ten (10) second period and one cycle of data recording for each successive six-minute (6-minute) period.
- e. All data from the COMS shall be reduced to six-minute (6-minute) averages.

- f. The six-minute (6-minute) opacity averages shall be calculated from thirty-six (36) or more data points equally spaced over each six-minute (6-minute) period.
- g. The COMS shall be in conformance with Performance Specification 1 in 40 CFR Part 60, Appendix B.
- h. The COMS must provide for a minimum of ninety (90) percent valid data for each semi-annual calendar period (January 1 - June 30 and July 1 - December 31).

(Auth.: HAR §11-60.1-3, §11-60.1-90 §11-60.1-161; 40 CFR §52.21, §60.45, Part 60 Appendix B)¹

6. Boilers K-1 through K-4 Visible Emissions

- a. Except in those months when performance testing is conducted to determine opacity, the permittee shall conduct **monthly** (calendar month), visible emissions observations of Boilers K-1 through K-4 by a certified reader in accordance with Method 9 or U.S. EPA approved equivalent methods, or alternative methods with prior written approval from the Department of Health. For each month, two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals.
- b. Records shall be completed and maintained in accordance with the visible emissions form requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90)

7. Boilers K-1 through K-6 Fuel Sulfur Content

The sulfur content of fuel oil No. 6 and fuel oil No. 2 fired in Boilers K-1 through K-6 shall be tested in accordance with the most current American Society for Testing and Materials (ASTM) methods. ASTM Method D4294 is a suitable alternative to Method D129 for determining sulfur content. The fuel sulfur content shall be verified by one of the following methods:

- a. A representative sample of each batch of fuel received shall be analyzed for its sulfur content; or
- b. A certificate of analysis on the sulfur content shall be obtained for the fuel delivered by the supplier.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

8. Boilers K-1 through K-6 Performance Testing

Records shall be kept on all performance test plans and test reports for Boilers K-1 through K-6 documenting the test methods and test results.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §60.46, §60.8)¹

9. Boilers K-1 through K-6 Alternate Operating Scenarios

- a. The permittee shall contemporaneously with making a change from one operating scenario to another in accordance with Attachment IIA, Special Condition No. C.6, record in a log, the scenario under which it is operating.
- b. The permittee shall maintain all records corresponding to the implementation of an alternate operating scenario specified in Attachment IIA, Special Condition No. C.6.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161)

10. Boilers K-1 through K-6 Inspection, Maintenance, and Repair Log

The permittee shall maintain records on inspections, maintenance, and any repair work performed on the boilers. At a minimum, a log shall be maintained to include the date of the inspection/work, name and title of the personnel performing inspection/work, a description of the findings and any work performed on the equipment, and a description of the part(s) inspected or repaired.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section E. Notification and Reporting Requirements

1. Standard Condition Reporting

Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Condition Nos. 16, 17, and 24, respectively:

- a. Intent to shut down air pollution control equipment for necessary scheduled maintenance;
- b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedences due to emergencies); and
- c. Permanent discontinuance of construction, modification, relocation, or operation of the facility, covered by this permit.

(Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, §11-60-16)²

2. Boilers K-1 through K-6 Deviations

The permittee shall report in writing **within five (5) working days** any deviations from permit requirements, including those attributed to upset conditions, the probable cause of such deviations, and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional performance testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90; 40 CFR §52.21)¹

3. Boilers K-5 and K-6 Excess Emissions and Monitor Downtime

- a. The permittee shall submit to the Department of Health and U.S. EPA, Region 9, reports of excess emissions and monitor downtime for Boilers K-5 and K-6 in accordance with 40 CFR, Part 60, §60.7(c). An **excess emissions and monitor systems performance report** shall be **postmarked by the 30th day following the end of each six-month (6-month) period**. Excess emissions shall be for all periods of operation, including startup, shutdown, and malfunction. For the purpose of the excess emissions and the monitoring system performance report required under §60.7(c), periods of excess emissions and monitor downtime shall be reported as follows:
 - i. Boiler K-6 CEMS for NO_x
 - (1) Excess emissions are any three-hour (3-hour) period during which the average emissions (arithmetic average of three (3) contiguous one-hour periods) exceed the NO_x standards specified in Attachment IIA, Special Condition No. C.3.
 - (2) A period of monitor downtime shall be any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration and CO₂ or O₂ concentration.
 - (3) Each report shall include the following:
 - (a) The magnitude of excess emissions as determined in accordance with 40 CFR §60.13(h), any conversion factor(s) used, and, the date and time of commencement and completion of each time period of excess emissions and monitor downtime;
 - (b) Except for zero and span checks and nature of the system adjustments of the CEMS, specific identification of each period of excess emissions that occur during startups, shutdowns, and malfunctions, the nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted;
 - (c) The date and time identifying each period during which the CEMS was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments; and
 - (d) When no excess emissions have occurred or the CEMS has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - ii. Boilers K-5 and K-6 COMS
 - (1) Excess emissions are any six-minute (6-minute) period during which the average opacity exceeds the opacity limits specified in Attachment IIA, Special Condition No. C.4.b.
 - (2) A period of monitor downtime shall be any six-minute (6-minute) period in which sufficient data are not obtained to validate opacity.

- (3) Each report shall include the following:
- (a) The magnitude of excess emissions as determined in accordance with 40 CFR §60.13(h), any conversion factor(s) used, and, the date and time of commencement and completion of each time period of excess emissions and monitor downtime;
 - (b) Except for the nature of the system repairs or adjustments of the COMS, specific identification of each period of excess emissions and monitor downtime that occurs during startups, shutdowns, and malfunctions, the nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted;
 - (c) The date and time identifying each period during which the COMS was inoperative and the nature of the system repairs or adjustments; and
 - (d) When no excess emissions have occurred or the COMS has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

- b. The **Excess Emissions and Monitoring Performance Report** shall be submitted with the attached **Excess Emissions and Monitoring System Performance Summary Report Form**.

(Auth.: HAR §11-60.1-3, §11-60.1-90, and §11-60.1-161; 40 CFR §60.7, §60.13, §60.45)¹

4. Boilers K-1 through K-6 Annual Emissions

- a. As required by Attachment IV and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall submit **annually** the total tons per year emitted of each regulated air pollutant, including hazardous air pollutants and greenhouse gases. The reporting of annual emissions is due **within sixty (60) days following** the end of each calendar year. Completion and submittal of the **Annual Emissions Report Form: Boilers**, or equivalent form, shall be used for reporting.
- b. Upon the written request of the permittee, the deadline for reporting annual emissions may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

5. Boilers K-1 through K-6 Monitoring Reports

The permittee shall submit **semi-annually** written reports to the Department of Health for the boilers. The reports shall be submitted **within sixty (60) days after** the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31). The enclosed **Monitoring Report Form: Boilers** and **Monitoring Report Form: Opacity Exceedances**, or equivalent forms shall be used for reporting.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

6. Boilers K-1 through K-4 Used Oil

The permittee shall submit a written request and receive prior written approval from the Department of Health before accepting used oil from another source. For each written request, the permittee shall identify the new source and provide a laboratory report of the used oil that compares results from the used oil analysis to the limits specified in

Attachment IIA, Special Condition No. C.5.g. For each used oil analysis, the laboratory report shall indicate the amount of used oil that sampling represents.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

7. Boilers K-1 through K-6 Performance Testing

- a. **At least thirty (30) days prior** to conducting a source performance test pursuant to Attachment IIA, Section F, the permittee shall submit a test plan indicating the date(s) of the scheduled performance test for as specified in Attachment IIA, Special Condition No. F.3.
- b. **Within sixty (60) days after** completion of a source performance test, the permittee shall submit the test results as specified in Attachment IIA, Special Condition No. F.4.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)¹

8. Boilers K-1 through K-6 Compliance Certification

- a. During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA, Region 9, the attached **Compliance Certification Form**, or equivalent form, pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:
 - i. The identification of each term or condition of the permit that is the basis of the certification;
 - ii. The compliance status;
 - iii. Whether compliance was continuous or intermittent;
 - iv. The methods used for determining the compliance status of the source currently and over the reporting period;
 - v. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
 - vi. Brief description of any deviations including identifying as possible exceptions to compliance and periods during which compliance is required and which the excursion or exceedances as defined in 40 CFR 64 occurred; and
 - vii. Any additional information as required by the Department of Health, including information to determine compliance.

- b. The **Compliance Certification Form** shall be submitted within **sixty (60) days after** the end of each calendar year, and shall be signed and dated by a responsible official.
- c. Upon the written request of the permittee, the deadline for submitting the **Compliance Certification Form** may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

9. Boilers K-1 through K-6 Alternate Operating Scenarios

- a. The permittee shall submit a written request and receive prior written approval from the Department of Health for firing Boilers K-1 through K-6 on an alternate fuel. The written request shall include, but not be limited to, the following:
 - i. The type of fuel proposed;
 - ii. Reason for using the alternate fuel;
 - iii. Emission rates for burning the alternate fuel;
 - iv. Documentation that burning the alternate fuel will not constitute a major modification subject to PSD review (e.g., an actual-to-potential applicability test; an actual-to-projected-actual applicability test; or documentation establishing that burning the alternate fuel would not involve a physical change or change in method of operation);
 - v. Documentation that burning the alternate fuel will not constitute a modification that would require compliance with NSPS or NESHAP requirements that would not otherwise apply;
 - vi. Documentation that burning the alternate fuel will not require compliance with an applicable requirement that is different from those specified in this permit; and
 - vii. If claiming the fuel switch does not constitute a modification because the boiler was capable of accommodating the alternate fuel prior to a rule's effective date (e.g., before January 6, 1975 for the PSD rules), the permittee shall provide, at a minimum, documentation that:
 - (1) The boiler was physically in existence before the rule's effective date;
 - (2) The alternate fuel was part of the original unit's design;
 - (3) The boiler has had the continuous ability to burn such fuel; and
 - (4) The boiler was capable of accommodating the use of the alternate fuel without making changes to the unit or the installation.
- b. For written requests to use fuel additives, the permittee shall, at a minimum, provide the Department of Health the specifications of the fuel additive(s), maximum expected emission rates of any criteria or non-criteria pollutant, certification that corresponding emission rates will not exceed permitted rates, and any other information requested by the Department of Health. The Department of Health may provide a conditional approval to impose additional monitoring, testing, record keeping, and reporting requirements to ensure the use of the fuel additive is in compliance with the applicable requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90; 40 CFR §52.21, §60.01, §63.1)¹

Section F. Testing Requirements

1. Boilers K-1 through K-6 Performance Testing

- a. **On an annual basis** or at other times as determined by the Department of Health, the permittee shall conduct or cause to be conducted performance testing on Boilers K-1 through K-6. Performance testing on Boilers K-1 through K-5 shall be conducted to determine compliance with the opacity limits specified in Attachment IIA, Special Condition No. C.4. Performance testing shall be conducted on Boiler K-6 to determine compliance with the PM, SO₂, and NO_x emission limits specified in Attachment IIA, Special Condition No. C.3, and opacity limits specified in Attachment IIA, Special Condition No. C.4.
- b. Testing shall be conducted at 90% to 100% of each boiler's rated capacity or at the highest achievable load if 90% to 100% of the maximum rated capacity cannot be physically achieved.
- c. Testing shall be conducted for firing the boilers on fuel oil No. 6 or other fuels as specified by the Department of Health.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §60.46, §60.8)^{1,2}

2. Test Methods

The performance tests shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR, Part 60, Appendix A, and 40 CFR §60.8. The following methods or EPA approved equivalent methods shall be used to determine the emission rates and opacity:

- a. The emission rate for PM, SO₂, and NO_x shall be computed for each run using the equation specified in 40 CFR §60.46(b).
- b. EPA Methods 1 through 4 shall be performed for sample sites and number of traverse sites, gas velocity and volumetric flow rate, gas analysis, and determining moisture in stack gases.
- c. The PM emissions shall be determined using EPA Method 5. For Method 5, the following apply:
 - i. Sampling time and sampling volume for each run shall be at least sixty (60) minutes and 0.85 dry standard cubic meter (thirty (30) dry standard cubic feet).
 - ii. The probe and filter holder heating system in the sampling train shall be set to provide an average gas temperature of 160 ±14 °C (320 ± 25 °F).
 - iii. The O₂ concentration shall be determined in accordance with 40 CFR §60.46(b)(2)(ii) and (b)(2)(iii).
- d. The SO₂ emissions shall be determined using EPA Method 6. For Method 6, the following apply:

- i. The sampling site shall be the same as that selected for the particulate sample.
- ii. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer than one (1) meter (3.28 feet).
- iii. The sampling time and sample volume for each sample run shall be at least twenty (20) minutes and 0.020 dry standard cubic meters (0.71 dry standard cubic feet).
- iv. Two (2) samples shall be taken during a one-hour (1-hour) period, with each sample taken within a thirty-minute (30-minute) interval.
- v. The O₂ concentration and SO₂ emission rate for each run shall be determined in accordance with 40 CFR §60.46(b)(4)(ii).
- e. The NO_x emissions shall be determined using EPA Method 7. For Method 7, the following apply:
 - i. The sampling site and location shall be the same as for the SO₂ sample.
 - ii. Each run shall consist of four (4) grab samples, with each sample taken at about fifteen-minute (15-minute) intervals.
 - iii. The O₂ concentration for each run shall be determined in accordance with 40 CFR §60.46(b)(5)(ii).
 - iv. The NO_x emission rate shall be determined in accordance with 40 CFR §60.46(b)(5)(iii).
- f. Performance tests shall consist of three (3) separate runs using the applicable test method. For the purpose of determining compliance with the permit requirements, the arithmetic mean of the results from the three (3) runs shall apply. An O₂ (or CO₂) measurement shall be obtained simultaneously with each test run for the applicable pollutant.
- g. EPA Method 9 and the procedures in 40 CFR §60.11 shall be used to determine opacity.
- h. Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless the deviations are approved by the Department of Health before the tests.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §60.8)^{1,2}

3. Performance Test Plan

At least thirty (30) days prior to conducting the performance test, the permittee shall submit a written performance test plan to the Department of Health and U.S. EPA, Region 9, that includes test date(s), test duration, test methods, source operation, and any other parameters that may affect the test results. A test plan that does not have the approval of the Department of Health may be grounds to invalidate any test and require a retest.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; SIP §11-60-15)^{1,2}

4. Performance Test Report

Within sixty (60) days after completion of the performance test, the permittee shall submit to the Department of Health and U.S. EPA, Region 9, the test report which includes the operating conditions of the boilers at the time of the test (e.g., steam rate in pounds per hour, operating load, type of fuel fired, fuel consumption in gallons per hour, etc.), the summarized test results, other pertinent support calculations, and field/laboratory data.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §60.8; SIP §11-60-15)^{1,2}

5. Performance Test Waiver

Upon written request and justification, the Department of Health may waive the requirement for a specific annual performance test required by Attachment IIA, Section F. The waiver request is to be submitted prior to the required performance test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior test indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous performance test.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

6. Testing Expense and Monitoring

The permittee shall provide sample and testing facilities at its own expense and the Department of Health may monitor the performance tests.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-15, §11-60.1-90)

Section G. Agency Notification

1. Any document (including reports) required to be submitted by this covered source permit shall be in accordance with Attachment I, Standard Condition No. 30.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

¹The citations to the CFR identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

²The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

**ATTACHMENT IIB SPECIAL CONDITIONS – BLACK START DIESEL ENGINE GENERATORS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In addition to the standard conditions of the covered source permit, the following special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. Attachment IIB of this permit encompasses the following black start diesel engine generators and associated appurtenances:

<u>Unit</u>	<u>Description</u>
A	2.5 MW (nominal), General Motors black start diesel engine generator, model no. EMD 20-645, serial no. 63569.
B	2.5 MW (nominal), General Motors black start diesel engine generator, model no. EMD 20-645, serial no. 63301.

(Auth.: HAR §11-60.1-3)

2. The permittee shall install an identification tag or nameplate on the black start diesel engine generators listed above which identifies the model no., serial no., and manufacturer. The identification tag or nameplate shall be permanently attached to the equipment at a conspicuous location.

(Auth.: HAR §11-60.1-5)

Section B. Applicable Federal Regulations

1. The black start diesel engine generators are exempt from PSD review as a result of the operational restrictions specified in Attachment IIB, Special Condition Nos. C.1.a and C.1.b. Modifications that increase potential emissions above the applicable PSD threshold will require a full PSD review as though construction of the units did not commence. For the PSD evaluation, the black start diesel engine generators will be considered a new source and a net emissions increase based on previous operation is not applicable.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §52.21)¹

2. The black start diesel engine generators are subject to the provisions of the following federal regulations:
 - a. 40 CFR Part 63, NESHAP for Source Categories, Subpart A, General Provisions; and

- b. 40 CFR Part 63, NESHAP for Source Categories, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §63.6585)¹

Section C. Operational and Emission Limitations

1. Operating Limits

- a. The black start diesel engine generators shall be fired only on fuel oil No. 2 with a maximum sulfur content not to exceed 0.5% by weight.
- b. The total combined operating hours of the black start diesel engine generators shall not exceed three hundred (300) hours in any rolling twelve-month (12-month) period.
- c. For any six (6) minute averaging period, each diesel engine generator shall not exhibit visible emissions of twenty (20) percent or greater, except as follows: during startup, shutdown, or equipment breakdown, each diesel engine generator may exhibit visible emissions greater than twenty (20) percent opacity, but not exceeding sixty (60) percent opacity, for a period aggregating not more than six (6) minutes in any sixty (60) minute period.
- d. The black start diesel engine generators must be operated in accordance with 40 CFR §63.6640 (f)(2). If the black start diesel engine generators are not operated in accordance with 40 CFR §63.6640 (f)(2), the engines will not be considered an emergency engine and will need to meet all requirements for non-emergency engines.
- e. The black start diesel engine generators may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized.
- f. The diesel engine generators shall be maintained in good operating condition at all times with scheduled inspections and maintenance as recommended by the manufacturer and as needed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-32, §11-60.1-38, §11-60.1-90, §11-60.1-161; 40 CFR §52.21, §63.6640; SIP §11-60-24)^{1,2}

2. Alternate Operating Scenarios

- a. The permittee may temporarily replace each black start diesel engine generator with a temporary replacement unit if repair reasonably warrants the removal of the diesel engine generator from its site (i.e., equipment failure, engine overhaul, or any major equipment problems requiring maintenance for efficient operation) and the following provisions are adhered to:
 - i. The installation and operation of the temporary replacement unit shall not exceed twelve (12) consecutive months.

- ii. A request for the replacement unit shall be submitted in accordance with Attachment IIB, Special Condition No. E.6.a;
 - iii. The temporary replacement unit must be similar in size to the diesel engine generator being replaced with equal or lesser emissions;
 - iv. The temporary replacement unit shall comply with all applicable conditions required for the primary unit, including all air pollution control equipment requirements, operating restrictions, and emission limits;
 - v. The diesel engine generator shall be repaired and returned to service at the same location in a timely manner; and
 - vi. Removal and return information shall be submitted in accordance with Attachment IIB, Special Condition No. E.6.b.
- b. The Department of Health may require an ambient air quality assessment of the temporary unit allowed pursuant to Attachment IIB, Special Condition No. B.2.a, and/or provide a conditional approval to impose additional monitoring, testing, recordkeeping, and reporting requirements to ensure the temporary unit is in compliance with the applicable requirements of the permitted unit being temporarily replaced.
- c. Upon receiving written approval from the Department of Health, the permittee may use specific fuel additives to control algae, lubricity, improve combustion, inhibit corrosion, or other reasons. Requests for using fuel additives shall be submitted in accordance with Attachment IIA, Special Condition No. E.6.c.
- d. The terms and conditions under each operating scenario shall meet all applicable requirements, including the special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section D. Monitoring and Recordkeeping Requirements

1. Records

All records, including support information, shall be maintained at the facility for **at least five (5) years** from the date of the monitoring samples, measurements, tests, reports, or applications. Support information includes all maintenance, inspection, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department of Health or its representative(s) upon request.

(Auth.: HAR 11-60.1-3, §11-60.1-11, §11-60.1-90)

2. Operating Hours

A non-resetting hour meter shall be installed, operated, and maintained on the black start diesel engine generators for the continuous and permanent recording of the hours operated. The non-resetting hour meter shall not allow the manual resetting or other manual adjustments of the meter readings. The installation of any new non-resetting meters or the replacement of any existing non-resetting meters shall be designed to

accommodate a minimum of five (5) years of equipment operation, considering any operational limitations, before the meter returns to a zero reading. Records shall be kept that include the following:

- a. The date of the meter readings;
- b. Beginning meter readings for each month;
- c. The total combined hours operated for each month; and
- d. The total combined hours operated on a twelve-month (12-month) rolling basis.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

3. Fuel Consumption

Fuel purchase receipts, showing the fuel type, sulfur content (% by weight), date of delivery, and amount (gallons) of fuel delivered for each black start diesel engine generator shall be maintained. Fuel sulfur content may be demonstrated by providing the supplier's fuel specification sheet for the type of fuel purchased and received.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

4. Inspection, Maintenance, and Repair Log

The permittee shall maintain records on inspections, maintenance, and any repair work performed on the diesel engine generators. At a minimum, a log shall be maintained to include the date of the inspection/work, name and title of the personnel performing inspection/work, a description of the findings and any work performed on the equipment, and a description of the part(s) inspected or repaired.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

5. Visible Emissions

- a. Except in those months when performance testing is conducted to determine opacity, the permittee shall conduct **monthly** (calendar month), visible emissions observations of the black start diesel engine generators by a certified reader in accordance with Method 9 or U.S. EPA approved equivalent methods, or alternative methods with prior written approval from the Department of Health. For each month, two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals.
- b. Records shall be completed and maintained in accordance with the visible emissions form requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90)

6. Alternate Operating Scenario

- a. The permittee shall contemporaneously with making a change from one operating scenario to another in accordance with Attachment IIB, Special Condition No. C.2, record in a log at the permitted facility, the scenario under which it is operating.
- b. The permittee shall maintain all records corresponding to the implementation of an alternate operating scenario specified in Attachment IIB, Special Condition No. C.2.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section E. Notification and Reporting Requirements

1. Standard Condition Reporting

Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Condition Nos. 17 and 24, respectively:

- a. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and
- b. Permanent discontinuance of construction, modification, relocation, or operation of the facility covered by this permit.

(Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, §11-60-16)²

2. Deviations

The permittee shall report **within five (5) working** days any deviations from permit requirements, including those attributed to upset conditions, the probable cause of such deviations, and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90)

3. Annual Emissions

- a. As required by Attachment IV and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall submit **annually** the total tons per year emitted of each regulated air pollutant, including hazardous air pollutants and greenhouse gases. The reporting of annual emissions is due **within sixty (60) days** following the end of each calendar year. The enclosed **Annual Emissions Report Form: Black Start Diesel Engine Generators**, or equivalent form, shall be used for reporting.

- b. Upon the written request of the permittee, the deadline for reporting of annual emissions may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

4. Monitoring Reports

The permittee shall submit **semi-annually** written monitoring reports to the Department of Health and U.S. EPA, Region 9. The reports shall be submitted **within sixty (60) days** after the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31). The enclosed **Monitoring Report Form: Black Start Diesel Engine Generators** and **Monitoring Report Form Opacity Exceedances**, or equivalent forms, shall be used for reporting.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

5. Compliance Certification

- a. During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA, Region 9, the attached **Compliance Certification Form**, or equivalent form, pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:
 - i. The identification of each term or condition of the permit that is the basis of the certification;
 - ii. The compliance status;
 - iii. Whether compliance was continuous or intermittent;
 - iv. The methods used for determining the compliance status of the source currently and over the reporting period;
 - v. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
 - vi. Brief description of any deviations including identifying as possible exceptions to compliance and periods during which compliance is required and which the excursion or exceedances as defined in 40 CFR 64 occurred; and
 - vii. Any additional information as required by the Department of Health, including information to determine compliance.
- b. The **Compliance Certification Form** shall be submitted within **sixty (60) days after** the end of each calendar year, and shall be signed and dated by a responsible official.

- c. Upon the written request of the permittee, the deadline for submitting the **Compliance Certification Form** may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

6. Alternate Operating Scenario

- a. The permittee shall submit a written request and receive prior written approval from the Department of Health before exchanging a permitted diesel engine generator with a temporary replacement unit. The written request shall identify, at a minimum, the reasons for the replacement of the diesel engine generator from the site of operation and the estimated time period/dates for the temporary replacement, type, size, and manufacturing date of the temporary unit, emissions data, and stack parameters.
- b. Prior to the removal and return of the permitted diesel engine generator, the permittee shall submit to the Department of Health written documentation on the removal and return dates and on the make, size, model, and serial numbers for both the temporary replacement unit and the installed unit.
- c. For written requests to use fuel additives, the permittee shall, at a minimum, provide the Department of Health the specifications of the fuel additive(s), maximum expected emission rates of any criteria or non-criteria pollutant, certification that corresponding emission rates will not exceed permitted rates, and any other information requested by the Department of Health. The Department of Health may provide a conditional approval to impose additional monitoring, testing, record keeping, and reporting requirements to ensure the use of the fuel additive is in compliance with the applicable requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

7. Boilers K-1 through K-6 Performance Testing

- a. **At least thirty (30) days prior** to conducting a source performance test pursuant to Attachment IIA, Section F, the permittee shall submit a test plan indicating the date(s) of the scheduled performance test for as specified in Attachment IIA, Special Condition No. F.3.
- b. **Within sixty (60) days after** completion of a source performance test, the permittee shall submit the test results as specified in Attachment IIA, Special Condition No. F.4.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)¹

Section F. Testing Requirements

1. Performance Testing

- a. **On an annual basis** or at other times as determined by the Department of Health, the permittee shall conduct or cause to be conducted performance testing on each black

start diesel engine generator to determine compliance with the opacity limits specified in Attachment IIB, Special Condition No. C.1.c.

- b. Testing shall be conducted at 90% to 100% of each unit's rated capacity or at the highest achievable load if 90% to 100% of the maximum rated capacity cannot be physically achieved.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; SIP §11-60-15; 40 CFR §60.46, §60.8)^{1,2}

2. Test Methods

- a. The performance tests shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR Part 60, Appendix A, and 40 CFR §60.8.
- b. EPA Method 9 and the procedures in 40 CFR §60.11 shall be used to determine opacity.

3. Performance Test Plan

At least thirty (30) days prior to conducting the performance test, the permittee shall submit a written performance test plan to the Department of Health and U.S. EPA, Region 9, that includes test date(s), test duration, test methods, source operation, and any other parameters that may affect the test results. A test plan that does not have the approval of the Department of Health may be grounds to invalidate any test and require a retest.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; SIP §11-60-15)^{1,2}

4. Performance Test Report

Within sixty (60) days after completion of the performance test, the permittee shall submit to the Department of Health and U.S. EPA, Region 9, the test report which includes the operating conditions of the boilers at the time of the test (e.g., steam rate in pounds per hour, operating load, type of fuel fired, fuel consumption in gallons per hour, etc.), the summarized test results, other pertinent support calculations, and field/laboratory data.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §60.8; SIP §11-60-15)^{1,2}

5. Performance Test Waiver

Upon written request and justification, the Department of Health may waive the requirement for a specific annual performance test required by Attachment IIA, Section F. The waiver request is to be submitted prior to the required performance test and must include documentation justifying such action. Documentation should include, but is not limited to,

the results of the prior test indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous performance test.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

6. Testing Expense and Monitoring

The permittee shall provide sample and testing facilities at its own expense and the Department of Health may monitor the performance tests.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-15, §11-60.1-90)

Section G. Agency Notification

1. Any document (including reports) required to be submitted by this covered source permit shall be in accordance with Attachment I, Standard Condition No. 30.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

¹The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

²The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

**ATTACHMENT II – INSIG: SPECIAL CONDITIONS – INSIGNIFICANT ACTIVITIES
NONCOVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In addition to the standard conditions of the covered source permit, the following special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. Attachment II – INSIG encompasses the following insignificant activities:
 - a. Diesel storage tank servicing 107.5 hp air compressor;
 - b. Two (2) 4,700 gallon used lube oil tanks servicing Boilers K-1 through K-4;
 - c. 5,581 gallon used lube oil tank servicing Boilers K-5 and K-6;
 - d. 1,745 gallon diesel tank for boiler igniter fuel;
 - e. 7,000 gallon diesel tank for boiler igniter fuel;
 - f. 3,750 gallon diesel tank for boiler igniter fuel;
 - g. 440 gallon diesel tank for fire pump;
 - h. 12,000 gallon diesel tank for black start diesel engine generators;
 - i. 1,150 gallon propane tank;
 - j. 2,000 gallon propane tank;
 - k. 1,000 gallon propane tank;
 - l. 100 kW Roline LPG fired emergency generator;
 - m. 170 kW Waukesha LPG fired emergency generator;
 - n. 100 kW Cummins emergency diesel engine generator;
 - o. 107 hp Isuzu air compressor diesel engine;
 - p. Paint spray booths;
 - q. 96,421 barrel fuel oil No. 6, Tank No. 11;
 - r. 96,421 barrel fuel oil No. 6, Tank No. 12;
 - s. 151,318 barrel fuel oil No. 6, Tank No. 13;
 - t. 151,544 barrel fuel oil No. 6, Tank No. 14;
 - u. 91,140 gallon fuel oil No. 6 test tank;
 - v. Fugitive leaks from valves, flanges, pump seals, and VOC water separators; and
 - w. Gasoline dispensing operations.

(Auth.: HAR §11-60.1-3)

Section B. Operational Limitations

1. The permittee shall take measures to operate applicable insignificant activities in accordance with the provisions of HAR, Subchapter 2.

(Auth.: HAR §11-60.1-3, §11-60.1-82, §11-60.1-90)
2. The Department of Health may at any time require the permittee to further abate emissions if an inspection indicates poor or insufficient controls.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-82, §11-60.1-90)

Section C. Monitoring and Recordkeeping Requirements

1. The Department of Health reserves the right to require monitoring, recordkeeping, or testing of any insignificant activity to determine compliance with the applicable requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

2. All records shall be maintained for at least five (5) years from the date of any required monitoring, recordkeeping, testing, or reporting. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department of Health or its authorized representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

Section D. Notification and Reporting

1. Compliance Certification

- a. During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA, Region 9, the attached **Compliance Certification Form**, or equivalent form, pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include at a minimum the following information:

- i. The identification of each term or condition of the permit that is the basis of the certification;
- ii. The compliance status;
- iii. Whether compliance was continuous or intermittent;
- iv. The methods used for determining the compliance status of the source currently and over the reporting period;
- v. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
- vi. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedances as defined in 40 CFR Part 64 occurred; and
- vii. Any additional information as required by the Department of Health including information to determine compliance.

- b. In lieu of addressing each emission unit as specified in the attached **Compliance Certification Form**, the permittee may address insignificant activities as a single unit provided compliance is met with all applicable requirements. If compliance is not totally attained, the permittee shall identify the specific insignificant activity and provide the details associated with the noncompliance.

- c. The compliance certification shall be submitted within **sixty (60) days after** the end of each calendar year and shall be signed and dated by a responsible official or authorized representative.
- d. Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

Section E. Agency Notification

- 1. Any document (including reports) required to be submitted by this covered source permit shall be done in accordance with Attachment I, Standard Condition No. 30.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

**ATTACHMENT III: ANNUAL FEE REQUIREMENTS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

The following requirements for the submittal of annual fees are established pursuant to HAR, Title 11, Chapter 60.1, Air Pollution Control. Should HAR, Chapter 60.1 be revised such that the following requirements are in conflict with the provisions of HAR, Chapter 60.1, the permittee shall comply with the provisions of HAR, Chapter 60.1

1. Annual fees shall be paid in full:
 - a. Within **sixty (60) days** after the end of each calendar year; and
 - b. Within **thirty (30) days** after the permanent discontinuance of the covered source.
2. The annual fees shall be determined and submitted in accordance with Hawaii Administrative Rules, Chapter 11-60.1, Subchapter 6.
3. The annual emissions data for which the annual fees are based shall accompany the submittal of any annual fees and submitted on forms furnished by the Department of Health.
4. The annual fees and the emission data shall be mailed to:

**Clean Air Branch
Environmental Management Division
Hawaii Department of Health
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814**

**ATTACHMENT IV: ANNUAL EMISSIONS REPORTING REQUIREMENTS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions.

1. Complete the attached forms:

Annual Emissions Report Form: Boilers

Annual Emissions Report Form: Black Start Diesel Engine Generators

2. The reporting period shall be from January 1 to December 31 of each year. All reports shall be submitted to the Department of Health within **sixty (60) days** after the end of each calendar year and shall be mailed to the following address:

**Clean Air Branch
Environmental Management Division
Hawaii Department of Health
919 Ala Moana Boulevard, Room 203
Honolulu, HI 96814**

3. The permittee shall retain the information submitted, including all emission calculations. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the Department of Health upon request.
4. Any information submitted to the Department of Health without a request for confidentiality shall be considered public record.
5. In accordance with HAR, Section 11-60.1-14, the permittee may request confidential treatment of specific information including information concerning secret processes or methods of manufacturing, by submitting a written request to the Director and clearly identifying the specific information that is to be accorded confidential treatment.

**COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0240-01-C**

PAGE 1 OF ____

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following certification at least annually, or more frequently as requested by the Department:

(Make Copies of the Compliance Certification Form for Future Use)

For Period: _____ Date: _____

Company/Facility Name: _____

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0240-01-C
(CONTINUED, PAGE 2 OF ____)

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

The purpose of this form is to evaluate whether or not the facility was in compliance with the permit terms and conditions during the covered period. If there were any deviations to the permit terms and conditions during the covered period, the deviation(s) shall be certified as intermittent compliance for the particular permit term(s) or condition(s). Deviations include failure to monitor (e.g., any problems or errors suspected with the meters), record, report, or collect the minimum data required by the permit to show compliance. In the absence of any deviation, the particular permit term(s) or condition(s) may be certified as continuous compliance.

Instructions:

Please certify Sections A, B, and C below for continuous or intermittent compliance. Sections A and B are to be certified as a group of permit conditions. Section C shall be certified individually for each operational and emissions limit condition as listed in the Special Conditions section of the permit (list all applicable equipment for each condition). Any deviations shall also be listed individually and described in Section D. The facility may substitute its own generated form in verbatim for Sections C and D.

A. Attachment I, Standard Conditions

<u>Permit term/condition</u>	<u>Equipment</u>	<u>Compliance</u>
All standard conditions	All Equipment listed in the permit	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent

B. Special Conditions - Monitoring, Recordkeeping, Reporting, Testing, and INSIG

<u>Permit term/condition</u>	<u>Equipment</u>	<u>Compliance</u>
All monitoring conditions	All Equipment listed in the permit	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
<u>Permit term/condition</u>	<u>Equipment</u>	<u>Compliance</u>
All recordkeeping conditions	All Equipment listed in the permit	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
<u>Permit term/condition</u>	<u>Equipment</u>	<u>Compliance</u>
All reporting conditions	All Equipment listed in the permit	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
<u>Permit term/condition</u>	<u>Equipment</u>	<u>Compliance</u>
All testing conditions	All Equipment listed in the permit	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
<u>Permit term/condition</u>	<u>Equipment</u>	<u>Compliance</u>
All INSIG conditions	All Equipment listed in the permit	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent

**COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0240-01-C
(CONTINUED, PAGE ____ OF ____)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

C. Special Conditions - Operational and Emissions Limitations

Each permit term/condition shall be identified in chronological order using attachment and section numbers (e.g., Attachment II, B.1, Attachment IIA, Special Condition No. B.1.f, etc.). Each piece of equipment shall be identified using the description stated in Section A of the Special Conditions (e.g., unit no., model no., serial no., etc.). Check all methods (as required by permit) to show compliance for the respective permit term/condition.

<u>Permit term/condition</u>	<u>Equipment</u>	<u>Method</u>	<u>Compliance</u>
		<input type="checkbox"/> monitoring <input type="checkbox"/> recordkeeping <input type="checkbox"/> reporting <input type="checkbox"/> testing <input type="checkbox"/> none of the above	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		<input type="checkbox"/> monitoring <input type="checkbox"/> recordkeeping <input type="checkbox"/> reporting <input type="checkbox"/> testing <input type="checkbox"/> none of the above	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		<input type="checkbox"/> monitoring <input type="checkbox"/> recordkeeping <input type="checkbox"/> reporting <input type="checkbox"/> testing <input type="checkbox"/> none of the above	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		<input type="checkbox"/> monitoring <input type="checkbox"/> recordkeeping <input type="checkbox"/> reporting <input type="checkbox"/> testing <input type="checkbox"/> none of the above	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		<input type="checkbox"/> monitoring <input type="checkbox"/> recordkeeping <input type="checkbox"/> reporting <input type="checkbox"/> testing <input type="checkbox"/> none of the above	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent
		<input type="checkbox"/> monitoring <input type="checkbox"/> recordkeeping <input type="checkbox"/> reporting <input type="checkbox"/> testing <input type="checkbox"/> none of the above	<input type="checkbox"/> Continuous <input type="checkbox"/> Intermittent

(Make Additional Copies if Needed)

**COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0240-01-C
(CONTINUED, PAGE ____ OF ____)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

D. Deviations

<u>Permit Term/ Condition</u>	<u>Equipment / Brief Summary of Deviation</u>	<u>Deviation Period time (am/pm) & date (mo/day/yr)</u>	<u>Date of Written Deviation Report to DOH (mo/day/yr)</u>
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	

(Make Additional Copies if Needed)

**EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0240-01-C
(PAGE 1 OF 2)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the HAR, title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health and U.S. EPA, Region 9 the following information semi-annually:

(Make Copies for Additional Use)

Facility Name: _____

Company Name: _____

CEMS/COMS Description: _____

Boiler Description: _____

Pollutant Monitored: _____

Reporting Period Dates: From: _____ To: _____

Emission Limit: _____

Date of Last CEMS Certification/Audit: _____

Total Source Operating Time: _____

EMISSION DATA SUMMARY¹

1. Duration of excess emissions in reporting period due to:

- a. Startup/shutdown _____
- b. Cleaning/Soot Blowing _____
- c. Control Equipment Failure _____
- d. Process Problems _____
- e. Other Known Causes _____
- f. Unknown Causes _____
- g. Fuel Problems _____
- h. Alternate Operating Scenario..... _____

Number of incidents of excess emissions _____

2. Total Duration of Excess Emissions _____

3. Total Duration of Excess Emissions (% of Total Source Operating Time)..... _____

CEMS/COMS PERFORMANCE SUMMARY¹

1. CEMS/COMS downtime in reporting period due to:

- a. Monitor equipment malfunctions _____
- b. Non-Monitor equipment malfunctions _____
- c. Quality assurance calibration _____
- d. Other Known Causes _____
- e. Unknown Causes _____

Number of incidents of excess emissions _____

2. Total Duration of CEMS/COMS Downtime..... _____

3. Total Duration of CEMS/COMS Downtime (% of Total Source Operating Time) _____

¹ For opacity, record all times in minutes. For NO_x, record all times in hours.

**EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0240-01-C
(CONTINUED, PAGE 2 OF 2)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

Describe any changes since last semi-annual reporting period in CEMS/COMS, process or controls.

CERTIFICATION by Responsible Official

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

NAME (Print/Type): _____

Title: _____

(Signature): _____

**ANNUAL EMISSIONS REPORT FORM
BOILERS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions.

(Make Copies for Additional Use)

For Reporting Period: _____ Date: _____

Facility Name: _____

Equipment: Boilers K-1 through K-6.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (print): _____

Title: _____

Phone Number: _____

Responsible Official (signature): _____

1. Report the fuel consumption for the reporting period:

Boiler Unit	Capacity (MMBtu/hr)	Fuel Consumption (gallons/year)			
		Fuel Oil No. 6	Fuel Oil No. 2	Propane	Used Oil
K-1	903				
K-2	900				
K-3	892				
K-4	918				
K-5	1,468				
K-6	1,516				

2. Report the fuel sulfur content for the reporting period:

Boiler Unit	Maximum % Sulfur Content by Weight
Fuel Oil No. 6	
Fuel Oil No. 2	
Specification Used Oil	

**ANNUAL EMISSIONS REPORT FORM
BLACK START DIESEL ENGINE GENERATORS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions.

(Make Copies for Additional Use)

For Reporting Period: _____ Date: _____

Facility Name: _____

Equipment: Black Start Diesel Engine Generators A and B.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (print): _____

Title: _____

Phone Number: _____

Responsible Official (signature): _____

1. Report the fuel consumption for the reporting period:

Diesel Engine Generator Unit	Capacity (MW)	Maximum % Sulfur Content by Weight	Total Consumption (gallons/year)
A	2.5		
B	2.5		

**MONITORING REPORT FORM
BOILERS
COVERED SOURCE PERMIT NO. 0240-01-C
(PAGE 1 OF 3)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually:

(Make Copies for Additional Use)

For Reporting Period: _____ Date: _____

Facility name: _____

Equipment: Boilers K-1 through K-6.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (print): _____

Title: _____

Phone Number: _____

Responsible Official (signature): _____

1. Report the maximum sulfur content of the fuel burned by the boilers for the reporting period:

Fuel	Maximum % Sulfur Content by Weight
Fuel Oil No. 6	
Fuel Oil No. 2	

2. Report the maximum pollutant concentrations in the table below from the used oil fired by Boilers K-1 through K-4 for the reporting period:

Pollutant	Maximum Concentration (ppm)	Maximum % by Weight	Notes
Sulfur	N/A		
Arsenic		N/A	
Cadmium			
Chromium			
Lead			
Total Halogens			
PCBs			

3. Report the minimum flash point in °F for the specification used oil analyzed during the reporting period: _____

**MONITORING REPORT FORM
BOILERS
COVERED SOURCE PERMIT NO. 0240-01-C
(CONTINUED, PAGE 2 OF 3)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

4. For the reporting period, report incidences when the total combined fuel oil No. 2 and fuel oil No. 6 consumption for Boiler K-6 exceeded 8,610 gallons per hour based on the daily maximum average fuel consumption:

Exceedance Date	Fuel Consumption Rate (daily maximum average)	Reason for Exceedance/Final Outcome/Corrective Actions
	Gallons per Hour	

5. Report the total combined specification used oil consumption for Boilers K-1 through K-4 for the reporting period:

Month	Total Combined Specification Used Oil Monthly Consumption	Total Combined Specification Used Oil 12-Month Rolling Basis
	Boilers K-1 through K-4	Boilers K-1 through K-4
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

**MONITORING REPORT FORM
BOILERS
COVERED SOURCE PERMIT NO. 0240-01-C
(CONTINUED, PAGE 3 OF 3)**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

6. For the reporting period, identify all incidences when the thirty-six (36) hour startup limit specified in Attachment IIA, Special Condition No. C.2.a was exceeded for Boiler K-6:

Exceedance Date	Boiler Serial Number	Start-up Duration (hours)

7. Report the total combined startup duration for Boiler K-6 for the reporting period:

Month	Total Combined Monthly Start-up Duration (hours)	Total Combined Startup Duration 12-Month Rolling Basis (hours)
	Boiler K-6	Boilers K-6
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

8. Identify all incidences when the heat input rate for Boiler K-6 exceeded 433.5 MMBtu/hr over any rolling three (3) hour average during boiler startups for the reporting period:

Exceedance Date	Boiler Serial Number	Start-up Duration (hours)

**MONITORING REPORT FORM
BLACK START DIESEL ENGINE GENERATORS
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually.:

(Make Copies for Additional Use)

For Reporting Period: _____ Date: _____

Corporation: _____

Facility name: _____

Equipment: Black Start Diesel Engine Generators A and B.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (print): _____

Title: _____

Responsible Official (signature): _____

1. Report the maximum % by weight sulfur content of the fuel fired by the black start diesel engine generators for the reporting period:

Fuel	Maximum % Sulfur Content by Weight
Fuel Oil No. 2	

2. Report the total combined operating hours for the black start diesel engine generators for the reporting period:

Month	Total Combined Operating Hours	Total Combined Operating Hours-Month Rolling Basis
	Diesel Engine Generators A and B	Diesel Engine Generators A and B
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

[illegible]

**VISIBLE EMISSIONS FORM REQUIREMENTS
STATE OF HAWAII
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

The Visible Emissions Form shall be completed **monthly** (each calendar month) for the equipment by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9. The Visible Emissions Form shall be completed as follows:

1. Visible emissions observations shall take place during the day only and shall be compared to the Ringelmann Chart provided. The opacity shall be noted in five (5) percent increments (e.g., 25%).
2. Orient the sun within a 140 degree sector to your back. Provide a source layout sketch on the Visible Emissions Form using the symbols as shown.
3. For visible emissions observations of the stack, stand at least three (3) stack heights but not more than a quarter mile from the stack.
4. Two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for each stack or emission point.
5. The six (6) minute average opacity reading shall be calculated for each observation.
6. If possible, the observations shall be performed as follows:
 - a. Read from where the line of sight is at right angles to the wind direction.
 - b. The line of sight shall not include more than one (1) plume at a time.
 - c. Read at the point in the plume with the greatest opacity (without condensed water vapor), ideally while the plume is no wider than the stack diameter.
 - d. Read the plume at fifteen (15) second intervals only. Do not read continuously.
 - e. The equipment shall be operating at the maximum permitted capacity.
7. If the equipment was shut-down for that period, briefly explain the reason for shut-down in the comment column.

The permittee shall retain the completed Visible Emissions Forms for recordkeeping. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the Department of Health, or its representative upon request.

Any required initial and annual performance test performed in accordance with Method 9 by a certified reader shall satisfy the respective equipment's visible emissions monitoring requirements for the month the performance test is performed.

**VISIBLE EMISSIONS FORM
COVERED SOURCE PERMIT NO. 0240-01-C**

Issuance Date: January 18, 2013

Expiration Date: January 17, 2018

(Make Copies for Future Use for Each Stack)

Permit No.: 0240-01-C

Facility Name: _____

Equipment and Fuel: _____

Site Conditions:

Stack height above ground (ft): _____

Stack distance from observer (ft): _____

Emission color (black or white): _____

Sky conditions (% cloud cover): _____

Wind speed (mph): _____

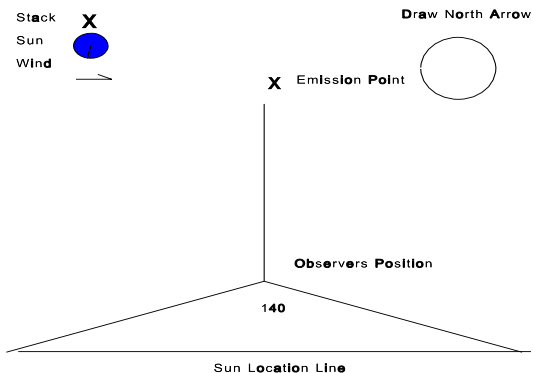
Temperature (°F): _____

Observer Name: _____

Certified? (Yes/No): _____

Observation Date and Start Time: _____

Method of observation (Method 9): _____



SECONDS	0	15	30	45	COMMENTS
MINUTES					
1					
2					
3					
4					
5					
6					
Six (6) Minute Average Opacity Reading (%):					

Observation Date and Start Time: _____

Method of observation (Method 9): _____

SECONDS	0	15	30	45	COMMENTS
MINUTES					
1					
2					
3					
4					
5					
6					
Six (6) Minute Average Opacity Reading (%):					